

RAW SEQUENTIAL LISTING

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For the first two cases, the \mathcal{H}_2 norm of the closed-loop system is given by

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Let $\mathcal{A} = \{A_1, \dots, A_n\}$ be a family of n sets, each of size k , and let $\mathcal{B} = \{B_1, \dots, B_m\}$ be a family of m sets, each of size l . Suppose that \mathcal{A} and \mathcal{B} are t -wise independent, i.e., for any t distinct sets A_{i_1}, \dots, A_{i_t} in \mathcal{A} and any t distinct sets B_{j_1}, \dots, B_{j_t} in \mathcal{B} , the sets A_{i_1}, \dots, A_{i_t} are independent of B_{j_1}, \dots, B_{j_t} . Let $\mathcal{C} = \{C_1, \dots, C_{nm}\}$ be a family of nm sets, each of size $k+l$, defined by $C_{ij} = A_i \cup B_j$. Suppose that \mathcal{C} is t -wise independent. Then, for any t distinct sets $C_{i_1 j_1}, \dots, C_{i_t j_t}$ in \mathcal{C} , the sets A_{i_1}, \dots, A_{i_t} are independent of B_{j_1}, \dots, B_{j_t} . This is a special case of the more general result of Alon and Naor [1999].

$$F_{\text{eff}}^{\text{eff}} = \frac{1}{2} \left(\frac{1}{2} + \frac{1}{2} \right) = \frac{1}{2}$$

$$L_{\text{eff}} = L \left(1 - \frac{1}{2} \frac{v_{\text{ph}}}{v_{\text{ph}} + v_{\text{gr}}} \right) \quad (1)$$